

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the Application.

Listing of Claims:

Claims 1-21 (Canceled).

Claim 22. (Previously presented) A communication system controller comprising:

interface circuitry for communicating, with an information transmission device, information requesting setup of a call and parameters for configuring the information transmission device, wherein the parameters for configuring the information transmission device comprise information specifically related to the conversion, by the information transmission device, of digitized voice information into an analog voice signal, and of an analog voice signal into digitized voice information;

at least one processor operably coupled to the interface circuitry; and
operational software executable by the at least one processor, the operational software causing the at least one processor to produce the parameters for configuring the information transmission device based upon the information requesting setup of a call, the information transmission device thereby communicatively coupling one of a plurality of communication networks to another of the plurality of communication networks.

Claim 23. (Previously Presented) The controller of claim 22 wherein the plurality of communication networks comprises a packet network.

Claim 24. (Previously Presented) The controller of claim 23 wherein the packet network communicates using an Internet protocol (IP).

Claim 25. (Previously Presented) The controller of claim 24 wherein the Internet protocol (IP) comprises the transmission control protocol (TCP)/Internet protocol (IP).

Claim 26. (Previously Presented) The controller of claim 23 wherein the packet network comprises a wireless network.

Claim 27. (Previously Presented) The controller of claim 22 wherein the plurality of communication networks comprises a conventional telephone switching network.

Claim 28. (Previously Presented) The controller of claim 27 wherein the conventional telephone switching network communicates using analog signals.

Claim 29. (Previously Presented) The controller of claim 22 further comprising a packet network interface for communicating using a packet protocol.

Claim 30. (Previously Presented) The controller of claim 29 wherein the packet protocol is compliant with an Ethernet protocol.

Claim 31. (Previously Presented) The controller of claim 29 wherein the packets communicated via the packet network interface comprise digitized voice information.

Claim 32. (Previously Presented) The controller of claim 29 wherein the packets communicated via the packet network interface comprise non-voice data.

Claim 33. (Previously Presented) The controller of claim 32 wherein at least a portion of the non-voice data is unrelated to the communication of digitized voice information.

Claim 34. (Previously Presented) The controller of claim 22 wherein the operational software is capable of determining a routing for the requested call.

Claim 35. (Previously Presented) The controller of claim 34 wherein the routing is determined based upon a cost of use of a communication network.

Claim 36. (Previously Presented) The controller of claim 34 wherein the routing is based upon predefined call routing information.

Claim 37. (Previously Presented) The controller of claim 22 wherein the information requesting setup of a call comprises information related to telephony signals received by the information transmission device.

Claim 38. (Previously Presented) The controller of claim 37 wherein the telephony signals received comprise at least one of dual tone multi-frequency (DTMF) signals, dial tone, a ring signal, on-hook, off-hook, and call progress tones.

Claim 39. (Previously Presented) The controller of claim 22 wherein the parameters for configuring the information transmission device comprise information related to telephony signals generated by the information transmission device.

Claim 40. (Previously Presented) The controller of claim 39 wherein the telephony signals generated by the information transmission device comprise at least one of dual tone multi-frequency (DTMF) signals, dial tone, a busy signal, and a ringing signal.

Claim 41. (Cancelled)

Claim 42. (Previously Presented) The controller of claim 22 wherein the parameters for configuring the information transmission device comprise information related to the buffering of digitized voice information for a predefined period of time to minimize gaps in an analog voice signal.

Claim 43. (Previously Presented) The controller of claim 22 wherein the parameters for configuring the information transmission device comprise information

related to at least one of a battery supply, over-voltage protection, ringing current, tone generation, tone detection, two wire to four wire conversion, and test functionality.

Claim 44. (Previously Presented) The controller of claim 22 wherein the operational software is capable of reducing the quantity of digitized voice information communicated via the information transmission device, by changing the packetization of digitized voice information when voice activity on one of the plurality of communication networks falls below a predetermined level.

Claim 45. (Previously Presented) The controller of claim 22 wherein the interface circuitry is capable of communicating digitized voice information with the information transmission device.

Claim 46. (Previously Presented) The controller of claim 22 wherein the communication system controller and the information transmission device are located within the same housing.

Claim 47. (Previously Presented) A communication system controller comprising:

interface circuitry arranged to deliver configuration information to a system for communicatively coupling one of a plurality of communication networks to another of the plurality of communication networks based upon the configuration information, wherein the configuration information comprises information specifically related to the conversion, by the system, of digitized voice information into an analog voice signal, and of an analog voice signal into digitized voice information;

storage capable of containing operational software and call routing information;
and

at least one processor operably coupled to the interface circuitry, the at least one processor capable of accessing the operational software and call routing information, the operational software functioning at least to cause the at least one processor to

produce the configuration information based upon call setup information and the call routing information.

Claim 48. (Previously Presented) The controller of claim 47 wherein the plurality of communication networks comprises a packet network.

Claim 49. (Previously Presented) The controller of claim 48 wherein at least a portion of the packets transported by the packet network comprise digitized voice information.

Claim 50. (Previously Presented) The controller of claim 48 wherein the packet network uses an Internet protocol (IP).

Claim 51. (Previously Presented) The controller of claim 50 wherein the Internet protocol comprises the transmission control protocol (TCP)/Internet protocol (IP).

Claim 52. (Previously Presented) The controller of claim 47 wherein the plurality of communication networks comprises a conventional telephone switching network.

Claim 53. (Previously Presented) The controller of claim 52 wherein the conventional telephone switching network uses analog signals.

Claim 54. (Previously Presented) The controller of claim 47 wherein the call setup information is received via one of the plurality of communication networks.

Claim 55. (Previously Presented) The controller of claim 47 further comprising:
a network interface adapted to communicate using a wired network.

Claim 56. (Previously Presented) The controller of claim 55 wherein the wired network comprises an Ethernet compatible network.

Claim 57. (Previously Presented) The controller of claim 55 wherein the call setup information is received via the wired network.

Claim 58. (Previously Presented) The controller of claim 47 wherein the call setup information comprises a destination address.

Claim 59. (Previously Presented) The controller of claim 47 wherein the call routing information comprises at least one association of a destination address and a call route.

Claim 60. (Currently amended) A non-transitory computer-readable machine-readable storage having stored thereon a computer program having a plurality of code sections for implementing a communication system controller for controlling an information transmission device for communicatively coupling one of a plurality of communication networks to a second of the plurality of communication networks, the code sections executable by a machine for causing the machine to perform the operations comprising:

- storing routing information received from a user at a first location;
- accepting a call setup request via the one of the plurality of communication networks, the call setup request comprising a destination address corresponding to a second location;
- determining a call route between the first location and the second location based upon the call setup request and the stored routing information;
- generating configuration information using at least one of the call setup request and the stored routing information, wherein the configuration information comprises information specifically related to the conversion, by the information transmission device, of digitized voice information into an analog voice signal, and of an analog voice signal into digitized voice information; and
- providing the configuration information to the information transmission device to cause communicative coupling of the one of a plurality of communication networks to

the second of the plurality of communication networks in order to establish the requested call.

Claim 61. (Currently amended) The non-transitory computer-readable machine-readable storage of claim 60 wherein the plurality of communication networks comprises a packet network.

Claim 62. (Currently amended) The non-transitory computer-readable machine-readable storage of claim 61 wherein the packet network communicates using an Internet protocol (IP).

Claim 63. (Currently amended) The non-transitory computer-readable machine-readable storage of claim 62 wherein the Internet protocol (IP) comprises the transmission control protocol (TCP)/Internet protocol (IP).

Claim 64. (Currently amended) The non-transitory computer-readable machine-readable storage of claim 61 wherein the packet network comprises a wireless network.

Claim 65. (Currently amended) The non-transitory computer-readable machine-readable storage of claim 60 wherein the plurality of communication networks comprises a conventional telephone switching network.

Claim 66. (Currently amended) The non-transitory computer-readable machine-readable storage of claim 65 wherein the conventional telephone switching network communicates using analog signals.

Claim 67. (Currently amended) The non-transitory computer-readable machine-readable storage of claim 60 wherein the determining comprises:

determining whether routing information corresponding to the destination address is available using the stored routing information and the destination address;

prompting the user for routing information, if routing information corresponding to the destination address is not available; and

refraining from prompting the user, if routing information corresponding to the destination address is available.

Claim 68. (Currently amended) The non-transitory computer-readable machine-readable storage of claim 60 further comprising:

sending to the second location a call setup request.

Claim 69. (Currently amended) The non-transitory computer-readable machine-readable storage of claim 60 further comprising:

receiving from the second location acceptance of a call setup request.